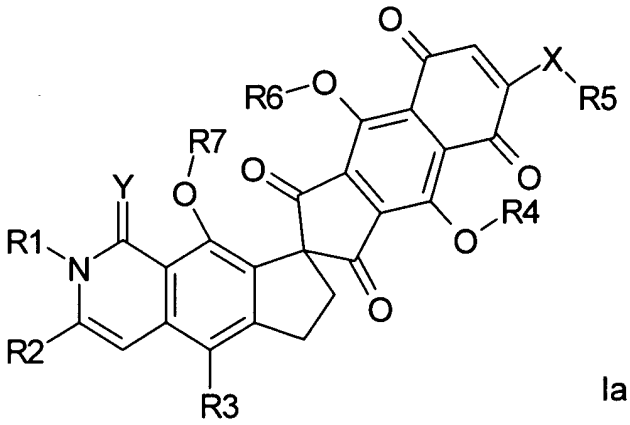
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

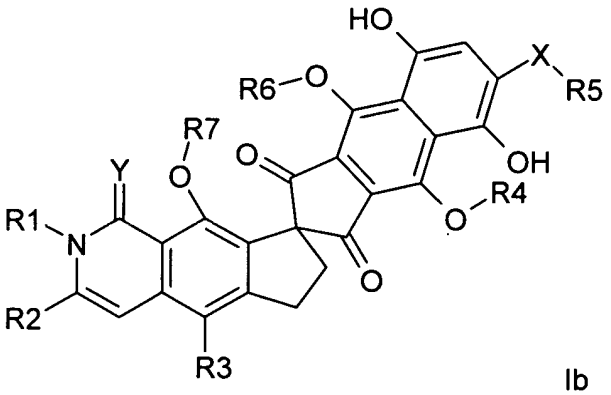
LISTING OF CLAIMS

Claims

1. (Currently amended) ~~The compounds~~ A compound according to the general formula Ia or Ib:



Ia



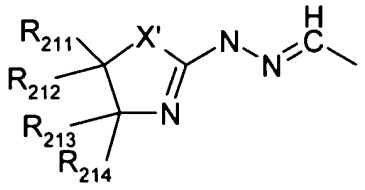
Ib

wherein in each,

R1 ~~means~~ is H, C_1-C_6 alkyl, cycloalkyl, or C_1-C_4 ~~alkylcycloalkyl,~~ alkylcycloalkyl;

R2 ~~means~~ is C_1-C_{14} alkyl, C_2-C_{14} alkenyl, 1,3-butadienyl, 1-butane, C_1-C_4 alkylaryl, heteroaryl, C_1-C_4 alkylheteroaryl, cycloalkyl, C_1-C_4 alkyl-cycloalkyl, heterocycloalkyl, C_1-C_4 alkylheterocycloalkyl, $C_mH_{2m+o-p}Y_p$ ~~(with m = 1 to 6, for o = 1, p = 1 to 2m+o; for m = 2 to 6, o = -1, p = 1 to 2m+o; for m = 4 to 6, o = -2, p = 1 to 2m+o; Y = independently from each other selected from the group consisting of halogen, OH, OR21, NH_2, NHR21, NR21R22, SH, SR21)~~, $CH_2NHCOR21$, $CH_2NHCSR21$, $CH_2S(O)nR21$, with n = 0, 1, 2, $CH_2SCOR21$,

CH_2OSO_2-R21, CHO, CH=NOH, CH(OH)R21, -CH=NOR21, -CH=NOCOR21, -CH=NOCH$_2$CONR21R22, -CH=NOCH(CH_3)CONR21R22, -CH=NOC(CH_3)$_2$CONR21R22, -CH=N-NHCO-R23, -CH=N-NHCO-CH$_2$NHCOR21, -CH=N-O-CH$_2$NHCOR21, -CH=N-NHCS-R23, -CH=CR24R25 (trans or cis), COOH, COOR21, CONR21R22, -CH=NR21, -



CH=N-NR21R22, , ~~(with X' = NR215, O, S, and R211, R212, R213, R214, R215 being independently from each other H or C_1-C_6 alkyl)~~, -CH=N-NHSO$_2$ aryl, or -CH=N-NHSO$_2$ heteroaryl,

wherein m is 1 to 6, o is 1, p is 1 to 2m+o;

m is 2 to 6, o is -1, p is 1 to 2m+o; or

m is 4 to 6, o is -2, p is 1 to 2m+o;

Y is independently from each other selected from the group consisting of halogen, OH, OR21, NH$_2$, NHR21, NR21R22, SH and SR21; and

wherein X' is NR215, O, or S; and R211, R212, R213, R214, R215 are independently from each other H or C_1-C_6 alkyl)

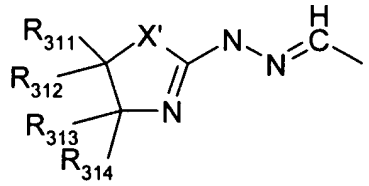
R21, R22 are independently from each other C_1-C_{14} alkyl, C_1-C_{14} alkanoyl, C_1-C_6 alkylhydroxy, C_1-C_6 alkylamino, C_1-C_6 alkylamino-C_1-C_6 alkyl, C_1-C_6 alkylamino-di-C_1-C_6 alkyl, cycloalkyl, C_1-C_4 alkylcycloalkyl, heterocycloalkyl, C_1-C_4 alkylheterocycloalkyl, aryl, aryloyl, C_1-C_4 alkylaryl, heteroaryl, heteroaryloyl, C_1-C_4 alkylheteroaryl, cycloalkanoyl, C_1-C_4 alkanoylcycloalkyl, heterocycloalkanoyl, C_1-C_4 alkanoylheterocycloalkyl, C_1-C_4 alkanoylaryl, C_1-C_4 alkanoylheteroaryl, or mono- and ~~di-sugar~~ di-sugars ~~-residues~~ linked through a C atom which would carry an OH ~~residue~~ group in the sugar, wherein the sugars are independently from each other selected from the group consisting of glucuronic acid and its stereo isomers at all optical atoms, aldopentoses, and aldohexoses, including their desoxy compounds ~~(such as e.g. glucose, desoxyglucose, ribose, desoxyribose),~~;

R23 independently of R21, ~~has the same meanings as~~ is R21, ~~or~~ a CH_2-pyridinium ~~salts~~ salt, or a CH_2-tri-C_1-C_6 alkylammonium ~~salts,~~ salt;

R24 independently of R21, ~~has the same meanings as~~ is R21, ~~or~~ H, CN, $COCH_3$, COOH, COOR21, CONR21R22, NH_2, ~~NHCOR21,~~ or NHCOR21;

R25 independently of R21, ~~has the same meanings as~~ is R21, ~~or~~ H, CN, $COCH_3$, COOH, COOR21, CONR21R22, NH_2, ~~NHCOR21,~~ or NHCOR21;

R24, R25 together ~~mean~~ are C_4-C_8 ~~cycloalkyl,~~ cycloalkyl;

R3 ~~means~~ is C_2-C_{14} alkyl, C_2-C_{14} alkenyl, C_2-C_{14} alkinyl, aryl, C_1-C_4 alkylaryl, heteroaryl, C_1-C_4 alkylheteroaryl, wherein the aryls or heteroaryls may be substituted with another aryl, C_1-C_4 alkylaryl, O-aryl, C_1-C_4 alkyl-O-aryl, heteroaryl, C_1-C_4 alkylheteroaryl, O-heteroaryl or C_1-C_4 alkyl-O-heteroaryl,
cycloalkyl, C_1-C_4 alkylcycloalkyl, heterocycloalkyl, C_1-C_4 alkylheterocycloalkyl, ~~$C_mH_{2m+o-p}Y_p$ (with m = 2 to 6, for o = 1, -1, p = 1 to 2m+o; for m = 4 to 6, o = -3, p = 1 to 2m+o; Y = independently from each other selected from the group consisting of halogen, OH, OR31, NH_2, NHR31, NR31R32, SH, SR31),~~ $C_mH_{2m+o-p}Y'_p$, CH_2NHCOR31, CH_2NHCSR31, CH_2S(O)nR31, ~~with n = 0, 1, 2,~~ CH_2SCOR31, CH_2OSO_2-R31, CHO, CH=NOH, CH(OH)R31, -CH=NOR31, -CH=NOCOR31, -CH=NOCH$_2$CONR31R32, -CH=NOCH(CH_3)CONR31R32, -CH=NOC(CH_3)$_2$CONR31R32, -CH=N-NHCO-R33, -CH=N-NHCO-CH_2NHCOR31, -CH=N-O-CH_2NHCOR31, -CH=N-NHCS-R33, -CH=CR34R35 (trans or cis), COOH, COOR31, CONR31R32, -CH=NR31, -CH=N-NR31R32, 

, (with X' = NR315, O, S, and R311, R312, R313, R314, R315 being independently from each other H or C_1-C_6 alkyl), -CH=N-NHSO$_2$ aryl, or -CH=N-NHSO$_2$- heteroaryl,
wherein m is 2-6, o is 1 or -1, and p is 1 to 2m + o; or
m is 4-6, o is -3 and p is 1 to 2m + o; and
Y' is independently from each other selected from the group consisting of halogen, OH, OR31, NH2, NHR31, NR31R32, SH, and SR31; and
wherein n is 0, 1 or 2;

R31, R32 mean independently from each other C_1-C_{14} alkyl, C_1-C_{14} alkanoyl, C_1-C_6 alkylhydroxy, C_1-C_6 alkylamino, C_1-C_6 alkylamino-C_1-C_6 alkyl, C_1-C_6 alkylamino-di-C_1-C_6 alkyl, cycloalkyl, C_1-C_4 alkylcycloalkyl, heterocycloalkyl, C_1-C_4 alkylheterocycloalkyl, aryl,

aryloyl, C_1-C_4 alkylaryl, heteroaryl, heteroaryloyl, C_1-C_4 alkylheteroaryl, cycloalkanoyl, C_1-C_4 alkanoylcycloalkyl, heterocycloalkanoyl, C_1-C_4 alkanoylheterocycloalkyl, C_1-C_4 alkanoylaryl, C_1-C_4 alkanoylheteroaryl, alkanoylaryl, C_1-C_4 alkanoylheteroaryl, or mono- and ~~di-sugar~~ di-sugars ~~residues~~ linked through a C atom which would carry an OH ~~residue~~ group in the sugar, wherein the sugars are independently from each other selected from the group consisting of glucuronic acid and its stereo isomers at all optical atoms, aldopentoses, and aldohexoses, including their desoxy ~~compounds (such as e.g. glucose, desoxyglucose, ribose, desoxyribose),~~ compounds;

R33 independently of R31, ~~has the same meanings as~~ is R31, ~~or~~ a CH_2-pyridinium ~~salts,~~ salt, or a CH_2-tri-C_1-C_6 alkylammonium ~~salts,~~ salt;

R34 independently of R21, ~~has the same meanings as~~ is R31, ~~or~~ H, CN, $COCH_3$, COOH, COOR21, CONR31R32, NH_2, ~~NHCOR31,~~ or NHCOR31;

R35 independently of R31, ~~has the same meanings as~~ is R31, ~~or~~ H, CN, $COCH_3$, COOH, COOR31, CONR31R32, NH_2, ~~NHCOR31,~~ or NHCOR31;

R34, R35 together ~~mean C_4-C_8 cycloalkyl,~~ are C_4-C_8 cycloalkyl;

R5 ~~means~~ is H, C_1-C_6 alkyl, cycloalkyl, C_1-C_4 alkylcycloalkyl, heterocycloalkyl, C_1-C_4 alkylheterocycloalkyl, aryl, C_1-C_4 alkylaryl, heteroaryl, ~~C_1-C_4 alkylheteroaryl,~~ or C_1-C_4 alkylheteroaryl;

R4, R6, R7 independently from each other ~~mean~~ are H, C_1-C_6 alkyl, ~~CO-R41,~~ or CO-R41;

R41 independently of R21, ~~has the same meanings as R21,~~ is R21;

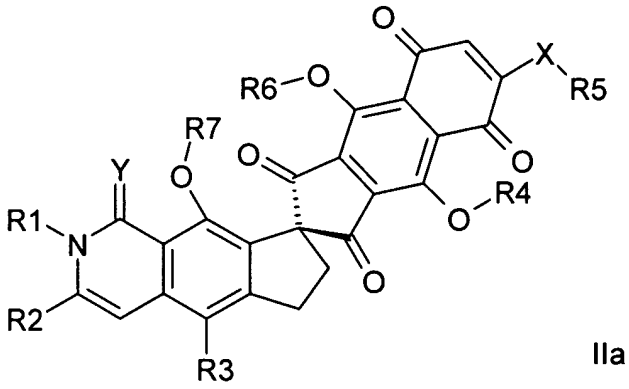
X ~~means~~ is O, S, NH, or N-R8, wherein R8 independently from R5 ~~may adopt the same meaning as~~ is R5, or R5 and R8, together with the N, form a ring with 4, 5, 6, 7, or 8 members, which may optionally contain still another heteroatom selected from the group consisting of N, O, ~~S,~~ and S;

or X-R5 may together be ~~H,~~ H;

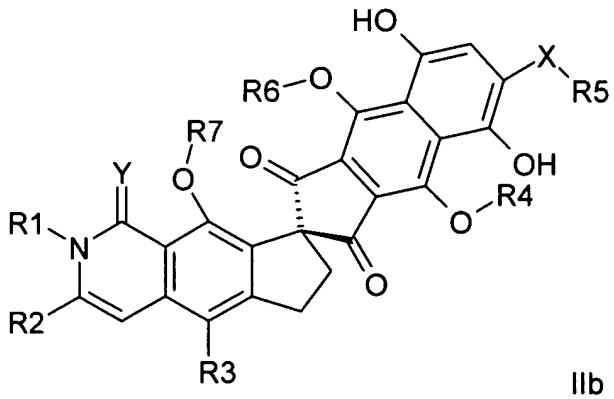
Y ~~means~~ is O, S, or NR9, wherein R9 ~~may be~~ is H or ~~C_1-C_6 alkyl,~~ C_1-C_6 alkyl;

~~as well their stereoisomers, tautomers, and their physiologically tolerable salts or inclusion compounds.~~ or a stereoisomer, tautomer or physically tolerable salt thereof.

2. (Original) The compounds according to claim 1, wherein Formula Ia or Ib adopt the stereochemistry of Formula IIa or IIb



IIa



IIb

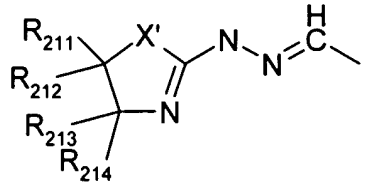
Claims 3-4. (Canceled)

5. (Currently amended) The ~~compounds~~ compound according to claim 1, wherein

R1 ~~means~~ is H, C_1-C_5 alkyl, ~~cycloalkyl, especially H,~~ or cycloalkyl;

R2 ~~means~~ is C_1-C_5 alkyl, C_1-C_4 alkylaryl, C_2-C_5 alkenyl, heteroaryl, C_1-C_4 alkylheteroaryl, CHF_2, CF_3, polyol side chain, ~~particularly~~ CHOH-CHOH-CHOH-CHOH-CH_3, CHOH-

$CHOH-CH=CH-CH_3$, $CH=CH-CHOH-CHOH-CH_3$, CH_2Y (Y = F, Cl, Br, I), CH_2NH_2, $CH_2NR21R22$, $CH_2NHCOR23$, $CH_2NHCSR23$, CH_2SH, $CH_2S(O)nR21$, with n = 0, 1, 2, $CH_2SCOR21$, ~~particularly~~ CH_2OH, CH_2OR21, CH_2OSO_2-R21, ~~particularly~~ CHO, $CH(OR21)_2$, $CH(SR21)_2$, CN, CH=NOH, CH=NOR21, CH=NOCOR21, CH=N-NHCO-R23, CH=CR24, R25 (trans or cis), ~~particularly~~ COOH ~~(particularly their physiologically tolerable salts)~~, COOR21, CONR21R22, -CH=NR21, -CH=N-NR21R22,



, ~~(with X' = NR215, O, S, and R211, R212, R213, R214, R215 being independently from each other H or C_1-C_6 alkyl),~~ -CH=N-$NHSO_2$-aryl, -CH=N-$NHSO_2$-heteroaryl, or ~~CH=N-NHCO-R23,~~

wherein X' is NR215, O, or S; and R211, R212, R213, R214, and R215 are independently from each other are H or C_1-C_6 alkyl;

R21, R22 independently from each other ~~mean~~ are C_1-C_6 alkyl, cycloalkyl, aryl, C_1-C_4 alkylaryl, heteroaryl, or C_1-C_4 ~~alkylheteroaryl,~~ alkylheteroaryl;

R23 independently of R21, ~~has the same meanings as~~ is R21, ~~or~~ a CH_2-pyridinium ~~salts,~~ salt, or a CH_2-tri-C_1-C_6 alkylammonium ~~salts,~~ salt;

R24 independently of R21, ~~has the same meanings as~~ is R21, ~~or~~ H, CN, $COCH_3$, COOH, COOR21, CONR21R22, NH_2, ~~NHCOR21,~~ or NHCOR21;

R25 independently of R21, ~~has the same meanings as~~ is R21, ~~or~~ H, CN, $COCH_3$, COOH, COOR21, CONR21R22, NH_2, ~~NHCOR21,~~ or NHCOR21;

R24, R25 together ~~mean C_4-C_8 cycloalkyl,~~ are C_4-C_8 cycloalkyl;

R3 ~~means~~ is C_2-C_{14} alkyl, C_2-C_{14} alkenyl, C_2-C_{14} alkinyl, aryl, C_1-C_4 alkylaryl, heteroaryl, or C_1-C_4 alkylheteroaryl, wherein the aryls or heteroaryls may be substituted with another aryl, C_1-C_4 alkylaryl, O-aryl, C_1-C_4 alkyl-O-aryl, heteroaryl, C_1-C_4 alkylheteroaryl, O-heteroaryl or ~~C_1-C_4 alkyl-O-heteroaryl,~~ C_1-C_4 alkyl-O-heteroaryl;

R5 ~~means~~ is H, C_1-C_3 alkyl, ~~cycloalkyl,~~ or cycloalkyl;

R4, R6, R7 independently from each other ~~mean~~ are H, C_1-C_5 alkyl, ~~CO-R41,~~ or CO-R41;

R41 independently of R21, ~~has the same meanings as R21,~~ is R21;

X ~~means~~ is O, S, NH, ~~N-R8,~~ or N-R8;

Y ~~means~~ is O, S, or NH.

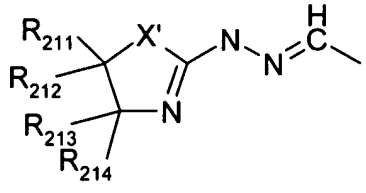
6. (Currently amended) The ~~compounds~~ compound according to claim 1 in the form of ~~their inclusion compounds with cyclodextrin, particularly alpha cyclodextrin~~ an inclusion compound with cyclodextrin.

Claims 7-14. (Canceled)

15. (New) The compound according to claim 2 wherein

R1 is H, C_1-C_5 alkyl, or cycloalkyl;

R2 is C_1-C_5 alkyl, C_1-C_4 alkylaryl, C_2-C_5 alkenyl, heteroaryl, C_1-C_4 alkylheteroaryl, CHF_2, CF_3, polyol side chain, CHOH-CHOH-CHOH-CHOH-CH_3, CHOH-CHOH-CH=CH-CH_3, CH=CH-CHOH-CHOH-CH_3, CH_2Y (Y = F, Cl, Br, I), CH_2NH_2, $CH_2NR21R22$, $CH_2NHCOR23$, $CH_2NHCSR23$, CH_2SH, $CH_2S(O)nR21$, with n = 0, 1, 2, $CH_2SCOR21$, CH_2OH, CH_2OR21, CH_2OSO_2-R21, CHO, $CH(OR21)_2$, $CH(SR21)_2$, CN, CH=NOH, CH=NOR21, CH=NOCOR21, CH=N-NHCO-R23, CH=CR24, R25 (trans or cis), COOH,



COOR21, CONR21R22, -CH=NR21, -CH=N-NR21R22, ,

-CH=N-NHSO$_2$-aryl, -CH=N-NHSO$_2$-heteroaryl, or CH=N-NHCO-R23,

wherein X' is NR215, O, or S; and R211, R212, R213, R214, and R215 are independently from each other are H or C_1-C_6 alkyl;

R21, R22 independently from each other are C_1-C_6 alkyl, cycloalkyl, aryl, C_1-C_4 alkylaryl, heteroaryl, or C_1-C_4 alkylheteroaryl;

R23 independently of R21, is R21, a CH_2-pyridinium salt, or a CH_2-tri-C_1-C_6 alkylammonium salt;

R24 independently of R21, is R21, H, CN, $COCH_3$, COOH, COOR21, CONR21R22, NH_2, or NHCOR21;

R25 independently of R21, is R21, H, CN, $COCH_3$, COOH, COOR21, CONR21R22, NH_2, or NHCOR21;

R24, R25 together are C_4-C_8 cycloalkyl;

R3 is C_2-C_{14} alkyl, C_2-C_{14} alkenyl, C_2-C_{14} alkinyl, aryl, C_1-C_4 alkylaryl, heteroaryl, or C_1-C_4 alkylheteroaryl, wherein the aryls or heteroaryls may be substituted with another aryl, C_1-C_4 alkylaryl, O-aryl, C_1-C_4 alkyl-O-aryl, heteroaryl, C_1-C_4 alkylheteroaryl, O-heteroaryl or C_1-C_4 alkyl-O-heteroaryl;

R5 is H, C_1-C_3 alkyl, or cycloalkyl;

R4, R6, R7 independently from each other are H, C_1-C_5 alkyl, or CO-R41;

R41 independently of R21, is R21;

X is O, S, NH, or N-R8;

Y is O, S, or NH.

16. (New) A pharmaceutical composition comprising a compound of claim 1 and a pharmaceutically acceptable carrier or adjuvant.

17. (New) A pharmaceutical composition comprising a compound of claim 2 and a pharmaceutically acceptable carrier or adjuvant.